

million years. It is evident that in the evolution of insects new types have arisen without necessarily displacing the old, and this has happened more easily because the great multitude of situations occupied by insects affords opportunities for success to innumerable diverse species. Among the discoveries possible to entomologists, few are more interesting than surviving relics of nearly extinct groups, and these may be found either as fossils or in the living fauna.

The figures of the discoidals and adjacent cells of Liassic genera are copied from Tillyard. The beautiful photograph (Plate XIII), enlarged rather more than one half, is the work of my colleague, Mr. Paul F. Shope.

The specimen will be placed in the collection of the A. & M. College of Texas, College Station, Texas.

A New Species of Oedematocera with Notes on Schistocercophaga Townsend (Dipt.: Tachinidae).

By J. M. ALDRICH, National Museum, Washington, D. C.

Besides *Hypostena flavcola* Coquillett, the type species, this genus contains *Hypostena gilvipes* Coquillett and the recently described *Oedematocera dampfi* Aldrich (Proc. Ent. Soc. Wash., vol. 29, 1927, p. 17). The last is a widespread and common parasite of the tropical Migratory Locust, *Schistocerca paranensis* Burmeister. *Gilvipes* has been reared from a cricket in Kansas (sent for identification by Professor S. J. Hunter). The host relations of *flavcola* are unknown, as are those of the new species here described.

Oedematocera striata new species.

Female.—Front at vertex .30 of head width, the eyes diverging very gradually and uniformly, so that just above the vibrissae they are separated by .48 of the head width. Pollen of head distinctly yellow on parafrontals and posterior orbits, silvery on parafacials; cheek about one-eighth of eye height, reddish; palpi and proboscis yellow; parafacials narrow, on lowest part only one-third as wide as third antennal joint. Antennae red at base, gradually infuscated on third joint, which is of ordinary width and four times the third; arista bare, reddish at base, thickened on about the basal fourth, basal joints short; facial ridges sharp, with some small hairs below. Ocellars proclinate, divergent; the usual two pairs of orbitals.

Thorax black in ground color, heavily overlaid with yellowish

white pollen, but with two well-defined dark brown stripes, which include the dorsocentrals and reach nearly to the scutellum; a diagonal brown area behind and above the front coxae, and the scutellum bordered with brown; acrostichal 2, 2; dorsocentral 3, 3; sternopleural 1, 1; scutellum with three lateral, a smaller non-decussate apical, and small discal. Prosternum bare.

Abdomen shining brownish-black above, basal half or less of second and third segments with silvery-white pollen, which is wider on venter; fourth segment almost covered with pollen, the tip reddish; first segment without median marginals, second with discal and marginal pair, third with discal pair and marginal row of six; fourth with discal row and a few smaller marginals.

Legs yellow on coxae and base of femora, the rest brown. Mid tibia with one bristle on outer front side, front tibia with two on outer hind side.

Wings yellowish brown, first posterior cell open at apex; third vein curving backward near tip; fourth with rounded oblique bend, concave near tip. Hind crossvein joining fourth at three-fifths of distance from small crossvein to bend; several stout spinules at base of third vein; no costal spines. Calypters pale yellow. Length, 5.6 mm.

Described from one female, collected at Cabima, Panama, May 22, 1911, by August Busck.

Type.—Female, Cat. No. 41109, U. S. N. M.

The species differs very little from *Oedematocera dampfi* Aldrich except in the strikingly vittate thorax.

Townsend (Ent. News, xxxix, 1928, p. 152) has proposed the new genus *Schistocercophaga*, with *Oedematocera dampfi* as type. His description is in the form of a comparison,—“Differs from *Hypophorinia* as follows,” etc. Unfortunately, he does not give a reference to the description of *Hypophorinia*; it was described by him in Revista Museo Paulista, vol. xv, 1926, p. 279. The term “described” can be used only in a qualified sense, as the student, after tracing down the reference, will find the name proposed in a key with no description except the couplets of the key, which are composed in a jargon of Portugese and Latin abbreviations*. The genotype (of course

*Townsend's abbreviations were discussed in the taxonomic section of the International Zoological Congress at Ithaca last August and it was voted unanimously (about twenty-five entomologists being present, representing several countries) that such abbreviations should be prohibited.

there is only one species) is *hyphna* new species, from the vicinity of Sao Paulo, Brazil, which is described in seven lines of the same composition. Nothing could be more hopeless than the effort to identify the genus; hence the description of *Schistocercophaga*, for those who do not have specimens of *dampf*i at hand and identified, can have no meaning. It is apparent that Townsend had no such specimens when he drew up his generic characterization, as he cites none and mentions only characters used by me in describing the species. How much simpler for other dipterists if he had made his comparison with *Oedematocera*. Even if one had a correctly named specimen of *Hypophorinia* as a basis, the statements regarding differences cannot be relied on, as I have many times found by comparing Townsend's genotypes, that in a paragraph of this kind he begins with differences, but at some point he changes to resemblances without indicating the fact.

Referring to the relationships of *dampf*i, Townsend says, "It evidently belongs in the tribe Phoriniini and is far removed from *Oedematocera*."

There is no definition of a tribe Phoriniini in literature, but we may assume that the genus *Phorinia* at least would be a member of it. The genotype of *Phorinia* is the European *aurifrons* Robineau-Desvoidy, of which the National Museum possesses two males determined by Villeneuve. On comparing *dampf*i with *aurifrons*, it is clear that I made a complete failure in describing the former, or else that Townsend knows nothing about *Phorinia*. I note the following principal differences: (1) *aurifrons* has the first posterior cell ending far before the tip of the wing, *dampf*i in the tip; (2) *aurifrons* has the facial ridges bristly almost to the level of the arista, *dampf*i has only small hairs on lower fourth; (3) *aurifrons* has the penultimate joint of the arista conspicuously elongated, several times as long as thick, while *dampf*i has it short; (4) *aurifrons* has the eyes densely hairy, *dampf*i has them bare; (5) *aurifrons* has the frontals descending below level of arista, in *dampf*i they reach only to the base of the antennae.

On the other hand, *dampf*i agrees well with the genotype of

Ocdematocera (flavcola Coquillett) and I have no doubt of the correctness of the generic reference. The male of *flavcola* has abnormally large antennae, changing the shape of the head considerably; in a case like this it is the female which should be relied on for the generic character, and it is the female which agrees with *dampfi*.

Key to Species of Ocdematocera.

1. Mesonotum with two distinct, broad blackish stripes, which include the dorsocentral bristles.....*striata* new species.
Mesonotum only very narrow, inconspicuous stripes, if any2.
2. Prosternum with a pair of delicate, hairlike bristles
gilvipes Coquillett
Prosternum bare3.
3. Abdomen wholly yellow*flavcola* Coquillett.
Abdomen with broad median blackish stripe, connected with blackish posterior margins on the segments.. *dampfi* Aldrich.

New Butterflies (Lepid.: Nymphalidae).

By J. D. GUNDER, Pasadena, California.

(Plate XIV.)

Euphydryas morandi n. sp. Fig. A ♂ and AA ♀.

Sexes similar. Constant in size and wing-shape to *Euphy. maria* (Skin.) and to *Euphy. wheeleri* (Hy. Edw.). The ground color of the former is dull brick-red and that of the latter is a peach-pink tint. This new species differs from both and from all other typical American *Euphydryas* in being a yellow-brown or dark ochre shade and has no suggestion of a red or pink tinge. In this respect it is unique, except for the tr. f. *omni-luteofucus* Gun. of *Euphy. chalcedona* (Dblidy. & Hew.)—(see Ent. News, July, 1925).

Regarding the upper surfaces. A distinguishing peculiarity is the dark heavily marked basal and cell areas of the secondaries with no rectangular white bars or flares extending outward therefrom; also no white spotting. On the primaries, there is a single submarginal row of round white spots well in and heavily black guarded. The usually expected white dashes or marks occurring within or near the cell are absent or quite inconspicuous.

On the under sides, the arrangement of the white maculation, black lines and ochre ground color is similar to most of the related group. The under sides are shown on the accompanying plate also in both sexes.